6. AN APPROACH TO IMPROVING THE FLOW OF INFORMATION FOR FORESTRY REGULATION IN THE PHILIPPINES: TREES FOR LIFE AND LIVELIHOOD

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Tree registration is necessary for the harvest and sale of timber in the Philippines. However, tree registration and harvest and transport approvals are cited as critical constraints to tree growing and market access for existing tree farmers. There is a lack of knowledge of policies and regulations dealing with the ownership of trees, and their harvest, transport and sale, both within the community and even in branches of government. These conditions point to the need for improving the flow of information relating to regulation, from the Department of Environment and Natural Resources (DENR) through Local Government Units and other agencies, to communities, so as to improve market conditions and access. An approach is suggested combining *systems thinking* and *action research*. This approach centres on the creation of action research teams involving government and university staff together with community representatives. The choice of action research methods is well suited to the complex situation, the need for change and the spirit of community involved in working with smallholder tree farmers. The key to changing information flow, bureaucratic regulation and community understanding lies in the combination of environmental goals to protect tree cover and biodiversity and the livelihood needs of smallholders. There is a need to promote farm forestry as a means of protecting the environment, and providing vital ecosystem services and opportunities for income generation from renewable resources. There is also a need for government staff to listen to and understand the needs of the farmers involved in forestry. The selected approach is intended to stimulate a passion for making a difference for rural livelihoods, and to promote a simple message of 'trees for life and livelihood'.

BACKGROUND AND PROBLEM ANALYSIS

In order to access markets for timber, landholders in the Philippines must first register their trees with Department of Environment and Natural Resources. However, there are institutional impediments to tree registration which serve as barriers to market access for farmers. These institutional barriers include lack of land titling, the complexity of tree registration procedures, uneven application of regulations and lack of knowledge of the regulations and procedures amongst some government staff and many farm households.

Recent studies in Leyte point to various obstacles to tree planting including tree harvest policies and concern for security of tenure. Emtage (2004) pointed out that different households had different support requirements and that the key steps to unlocking the problems included secure rights to both land and the tree crop and adequate markets. Harrison (2004) also pointed to 'regulatory failure' as a factor contributing to the lack of tree planting by smallholder farmers. He identified a number of areas for institutional change, including land-use planning and land titling, application of tree harvesting regulations, transfer of greater responsibility to Local Government Units (LGUs) and a need for greater separation of the powers of regulation and enforcement. There are problems created by time delays imposed by regulations, problems with documentation and with stakeholder

relationships, the need for pooling of resources, and the potential for a community organising role in improving the situation.

According to Herbohn (2004), the lack of information and consistency of application of DENR policies are major concerns for the improvement of the situation. Herbohn cited evidence relating to the differing rates of tree registration in different Community Environment and Natural Resources Offices (CENROs) throughout Leyte Province, linking this variability to the need for improvement in information flows and consistent implementation of policy.

The research conducted in Leyte also found the dominant constraints to improving smallholder returns from tree farms were the effects of regulations on market access and product quality (Emtage 2004). This situation provides the rationale for efforts to improve the flow of information concerning tree registration, harvest and transportation regulations, and approval mechanisms.

It is apparent that only a small proportion of the trees planted are actually registered. It is also apparent that few farmers claim to know how to register trees. The reasons given for not registering include remoteness and cost, although the official policy does not impose a registration cost. In practice, this varies widely and sometimes the field costs of the government staff must be paid to have them complete their inspection. The requirements imposed by local offices vary in terms of the information and documentation to be provided by applicants for tree registration.

Lawrence (1999) stated that foresters have generally been effective in communicating information about logging bans in the Philippines. She pointed out, however, that they have not been successful in explaining and promulgating the legal system for selling indigenous timber. Her research in Leyte identified a communication gap between farmers and foresters, explaining that this is due to a failure on the part of foresters to listen to farmers' knowledge, needs and preferences. She also found that the information supplied by foresters had the effect of discouraging farmers from planting trees, especially indigenous species.

There are potential benefits from improving communication both for increasing farmers' incomes from forestry and contributing to biodiversity outside protected areas. Further benefits may flow from the role of foresters in informing policy makers about the effects of their policies and promoting awareness of farmers' knowledge and needs.

Improved flow of information between DENR and CENRO staff and communities could help to improve the uptake of farm forestry and thus contribute to improving farm livelihoods and promoting biodiversity conservation in Leyte. The evidence discussed above suggests that this flow of information must be a two-way flow through government agencies (and within these agencies) and to and from the community.

Prior analysis of the actors and institutions involved in the complex situation reveals information about their interests and the rules governing their influence (Russell 2004a). Improving information flow will assist both bureaucratic (or regulatory) and market efficiency. However, there will be winners and losers associated with virtually every change. The accepted wisdom for accepting proposed changes is the hypothetical case that when the gains of the winners outweigh the losses, the changes are in the interest of society as a whole. However, it is necessary to look beyond this yardstick, to examine the distributional effects of change and the impacts on power and wealth. Withholding information constitutes an individual strategy for gaining financial advantage or exerting power for some stakeholders. Whilst the removal of barriers to information flow may be in the best interests of society as defined above, individuals may work against such changes in order to maximise their personal advantage. The prospect of an intervention to improve the flow of

information may not be welcomed by all of the stakeholders associated with farm forestry and the timber industry in the Philippines.

SELECTING AN INFORMATION AND EDUCATION APPROACH

The broad approach chosen is to work within a systems – rather than a reductionist – framework (Russell 2004a), and to follow an Action Research Methodology. This approach is in keeping with the overall direction of the ACIAR research project 'Improving financial returns to smallholder tree farmers in the Philippines'.

Action Research is defined as where a group goes through a cyclical process of action, reflection and change as a systematic methodology for research (after Perry and Zuber-Skerritt 1992, and Checkland 1991). This approach is reflected in other aspects of the project, such as the 'foresters field forums' that serve as a guide to best practice in silviculture for smallholder plots in Leyte (Figure 1). The foresters debate silvicultural techniques and species selection on site and discuss recommendations with farm owners. The foresters and extension staff will then work with farmers to improve the forest plots and engage the farmers in cycles of activity, observation, reflection and planning (Figure 2).

Figure 1. A foresters' field forum in Leyte, the Philippines

Note: The group carried out diagnosis and formulation of recommendations for silvicultural best practice at project demonstration sites.

Many authors have laid down and developed the theoretical basis of Action Research, e.g. Kemmis and McTaggart (1988) and Patton (1990). Action Research is a research methodology which pursues simultaneous aims of action (for change) and research (for understanding). This is achieved through a spiral process which alternates between action and critical reflection. The process is cyclic and entails reflection guiding action and action informing reflection. Later stages build upon early stages and insights and critical ideas emerge from experience during reflection. The approach is commonly intended for improvement and public learning and conducted by a group, rather than an individual researcher. It has characteristics of flexibility, practicality and critical reflection. The

methodology is participatory and emancipatory, engaging people in the study of their own problems in order to solve those problems.

The process entails a simple cycle of planning, acting, observing and reflecting, that is well suited to the conduct of project activities or related interventions (Russell 2004b). The cyclical process is illustrated in Figure 2, where a single cycle is shown, linking through a revised plan to the next cycle of action and change.

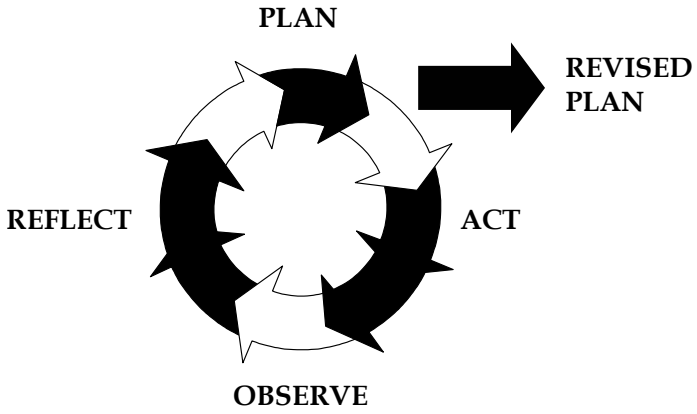

Figure 2. The action research cycle

Action research requires time, team spirit, collaboration and consensus, the breaking of old habits and hierarchies, and support from top management. These requirements stem from the incorporation of change into the agenda for research. The practical benefits of action research include: systematic and collaborative problem solving; improved practice; improved conditions of work and social context; advancing knowledge; and documenting excellence.

Explicit recognition from the outset that the project is an intervention is critical in terms of making a sustainable change to the current situation. When the intervention is planned in this light, there must be due consideration of entry and exit strategies, and thorough appreciation of the actors and institutions involved, the diverse motivations, interests and institutional arrangements influencing the stakeholders (Russell *et al*. 1999). A participatory approach is usually incorporated into action research methodology, to promote cooperation and strategic alignment between the various actors and agencies and to minimise threat. One strategy for reducing threat in the Leyte forestry context is to maximise opportunities for capacity building, especially in terms of the opportunities provided for DENR and LGU staff involved.

The overall approach is intended to be closely associated with that selected for improving silviculture in ACIAR project ASEM/2003/052. The interactions with farmers must be backed up with sound technical and market information and skills on the part of the professional staff.

A STRATEGY FOR IMPROVING INFORMATION FLOW

The strategy proposed is for the formulation of action research teams comprised of government staff concerned directly with the formulation and implementation of tree registration and harvest and transport policies, staff from other government agencies with strong interests and responsibilities in this area, university researchers and farmer representatives. The purpose in forming these teams is to review the existing situation with

respect to information flows, to identify prospects for improving the flow of information, and to take direct responsibility for effecting the changes necessary to achieve these improvements.

The action research teams will link to the timber industry through representation of stakeholder groups, their direct involvement and public voice. This can be achieved by the inclusion of farmer representatives in the action research team itself, or through the use of a farmer reference group. The flow of information will also be encouraged by the inclusion of barangay captains and municipal officials in project activities (Figure 3). By keeping these parties informed, there is greater opportunity for increasing the flow of information through the farming communities.

Figure 3. Project staff working through the barangay captain to obtain permission for further involvement with tree farmers

There is a wide array of methods for delivery of information for agricultural and agroforestry extension. The various methods recommended for fostering information flow identified by Bui et al. (2004) in their evaluation of agroforestry and sawmilling activities in Vietnam indicate the array of methods for information delivery likely to be useful. The methods described included the use of video and CD-ROM, postings on communal bulletin boards, mass media broadcasts and the formation of farmer networks for tree growers.

Some suggested media for improvement of information flows in the Philippines include the use of radio broadcasts and the provision of a package of extension materials relating to the laws, policies and processes governing the registration, harvest, transportation and sale of timber. These proposals will be considered by the action research teams. Evidence from the Philippines suggests that radio is effective in reaching the rural community:

> Radio provides the needed reach, frequency, and access to rural and remote areas, making it a promising, appropriate and powerful tool for education. In addition, ownership and patronage among poor households are relatively high compared to other media forms, particularly in rural settings (Lucas 1999).

In addition to links with other project activity, it is vital that the chosen approach links to existing farm extension services and follows any avenues for success in the improvement of information flows. If farmer ‘field schools’ (as advocated by van den Berg 2004) are used

and have proven successful in agricultural extension in the region, these could serve as a forum for extension of information concerning tree farming.

Education and training of the DENR and LGU staff is a critical component. This is not intended as formal training but rather as informal opportunities for changed practice, through recognition of constraints imposed by current procedures and avenues for improving the situation. If the individuals with the greatest influence on the flow of information are directly involved in recognising the existing problems and formulating solutions to these problems, there is greater likelihood that strategies that they themselves design and implement will lead to sustainable changes. In order to achieve these changes, the motivations and actions of the stakeholders must be examined in the light of the institutional arrangements governing them.

It is essential that the strategies devised for improving information flow link closely with other project activities, such that the changes suggested occur at three levels: work directly with farm households and communities, the operations of the DENR staff, and the policy level.

Figure 4 shows the relationship between various project activities and the action research workshops which lie at the core of the suggested approach for improving the flow of information concerning tree registration, harvest and transportation regulations and approval mechanisms. The action research workshops provide opportunities to monitor and report, in the information bulletins, what the tree farmers involved in the demonstration plots for the project (Figure 4, Activity 2.4) are required to do to get tree registration and to report and compare this information across the project.

The steps involved in bringing the action research teams to life are to:

i. confirm the aim with key stakeholders;
ii. secure sponsors' commitment;
iii. identify the participants;
iv. design and schedule regular workshops, including a training workshop;
v. secure the necessary resources;
vi. conduct workshops and implement activities to improve information flow;
vii. reflect on achievements and implement changes.

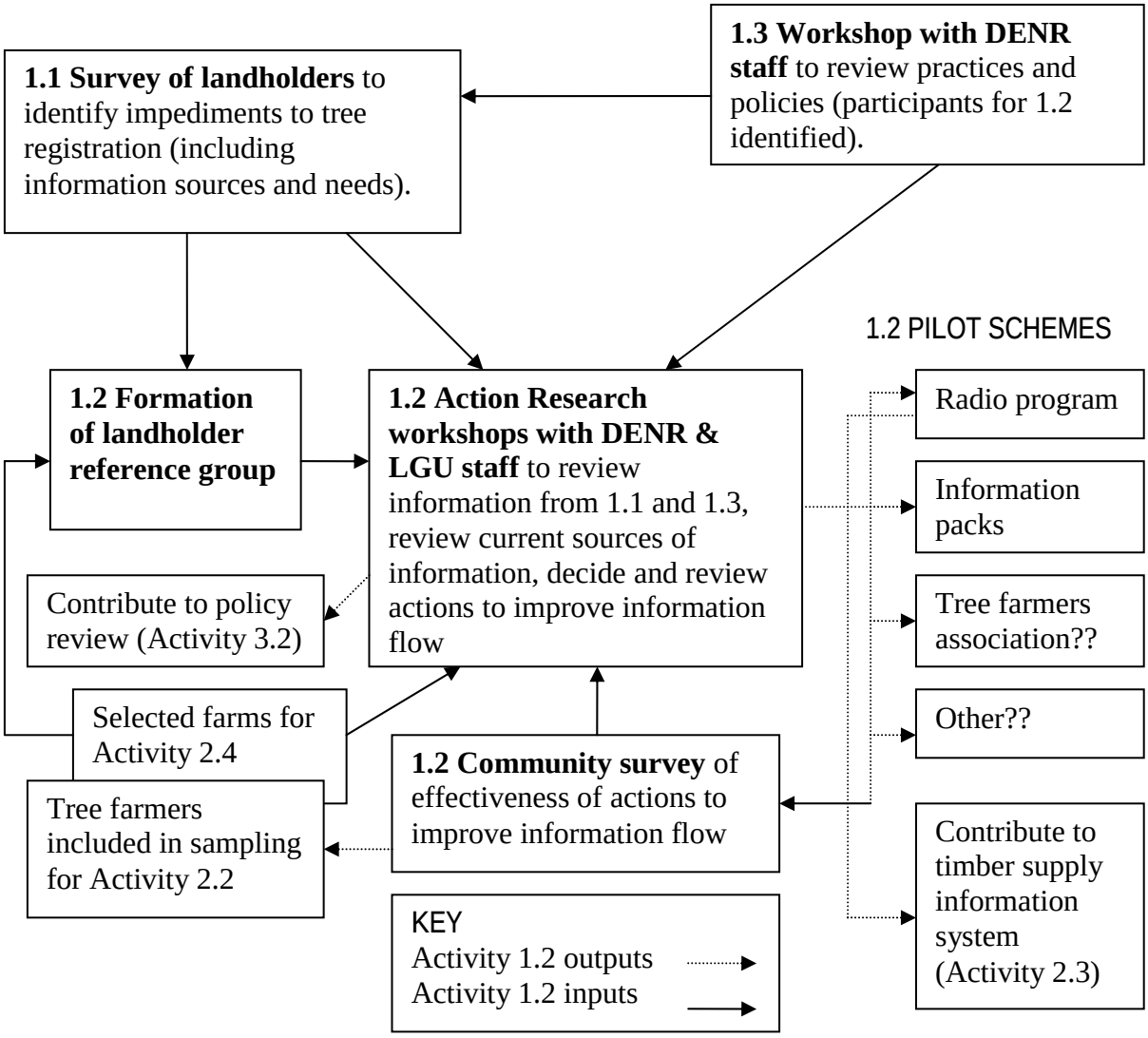

Figure 4: Relationship between activities concerning the development of strategies for improving information flow about tree registration, harvest and transportation regulations and approval mechanisms

Note: Numbering of components conforms to project design documents.

CONCLUSION

The use of action research methodology is well suited to the aim to improve the flow of information regarding tree registration, transport and sale of timber. The situation involves complex conditions of both regulatory and market failure, legal complexities, and low-income households for whom improved income is a critical concern. There are opportunities to improve on the flow of information within government and between government and the community. These opportunities require the sanction of senior government officers and political support to be realised. They also require a passion for making a difference to rural livelihoods on the part of the actors most directly concerned with tree registration, harvest and sale, and a clear and simple message of ‘trees for life and livelihood’.

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